

**PRIVATE EXPENDITURES OF TEACHER CANDIDATES
STUDYING AT MERSIN UNIVERSITY, TÜRKİYE**

Hüseyin Ergen¹

Geliş Tarihi/Received:06.10.2024

Elektronik Yayın / Online Published:15.12.2024

DOI: 10.48166/ejaes.1562386

ABSTRACT

Private higher education expenditures constitute one of the factors determining higher education demand. In this study, it is aimed at determining the level and types of teacher candidates' private expenditures, and the factors influencing the probability of making higher private expenditures. The sample of the study was drawn among the students enrolled in Mersin University Faculty of Education in 2013, 2016, 2019, and 2022. A model comprising five factors influencing the probability of making private expenditures higher than the average was developed. In this model, educational background, family background, other cost-related variables, higher education aspirations, and future teaching labor market expectations were included as determining factors. Data were collected by a questionnaire developed by the researcher. The model was estimated by logistic regression analysis. Results show that variables representing all five factors have a significant impact on the probability of making higher private expenditures. It is concluded that the model has the power to explain the problem of the study.

Keywords: Higher education demand, cost of education, teacher training students, financing of higher education.

¹ Assoc. Prof. Dr., Mersin University, Faculty of Education, Department of Educational Administration, Mersin, Türkiye, e-mail: ergen@mersin.edu.tr, ORCID: 0000-0002-2611-1863

ÖĞRETMEN ADAYLARININ KİŞİSEL HARCAMALARI: MERSİN ÜNİVERSİTESİ ÖRNEĞİ

ÖZET

Kişisel eğitim harcamaları, yüksek öğretim talebini belirleyen faktörlerden biridir. Bu çalışmada öğretmen adaylarının kişisel harcamalarının düzey ve türleri ile ortalamadan yüksek kişisel harcama yapma olasılığını etkileyen faktörlerin belirlenmesi amaçlanmıştır. Araştırmanın örneklemini 2013, 2016, 2019 ve 2022 öğretim yıllarında Mersin Üniversitesi Eğitim Fakültesinde öğrenim gören öğrenciler arasından seçilmiştir. Ortalamadan yüksek kişisel eğitim harcaması yapma olasılığını etkileyen faktörlerin tahmin edilmesi için bir model geliştirilmiştir. Bu modelde öğrencinin eğitim geçmişi, aile geçmişi, diğer maliyetle ilişkili değişkenler, yükseköğretim ile ilgili arzular ve gelecekteki öğretmen işgücü piyasasından beklentiler belirleyici faktörler olarak yer almaktadır. Veriler araştırmacı tarafından geliştirilen bir anket aracılığıyla toplanmıştır. Model lojistik regresyon analizi ile tahmin edilmiştir. Sonuçlar beş faktörü de temsil eden değişkenlerin daha yüksek kişisel harcama yapma olasılığı üzerinde anlamlı etkisinin olduğunu göstermektedir. Modelin çalışmanın problemini açıklamada bir gücü olduğu sonucuna varılmıştır.

Anahtar kelimeler: Yükseköğretim talebi, eğitimin maliyeti, öğretmen yetiştirme öğrencileri, yükseköğretimin finansmanı.

1. INTRODUCTION

One of the factors determining students' higher education demand and major choices is private cost of education. Private cost includes direct and indirect costs. Indirect costs are usually defined by forgone earnings during higher education. Direct costs comprise private expenditures on accommodation, transportation, tuition etc. Low-income students need grant aids and credit loans to cover these expenditures. In Türkiye, most of the teacher-training students apply for scholarships and credits provided by the government.

In Western countries changes in cost of higher education have significant effects on students' future wealth and depend mostly on their families' wealth. In the long run college attendance in the USA has been driven by changing real costs and rising earnings premium (Donovan & Herrington, 2019). During the last decades, college costs have increased while college attainment and relative earnings of college graduates have also increased (Jones & Yang, 2016). Many students value consumption amenities such as activities, sports, and dormitories (Jacob et al., 2018). Willingness to pay for these amenities depend on families' socio-economic status (SES). Financial support from parents affects higher education enrollment decisions (Flaster, 2018). Income elasticity of education expenditures greater for low SES families, especially in developing countries (Jenkins et al., 2019). Lower costs and greater geographical distribution were found increasing higher education enrollments of low SES secondary school graduates in Italy (Pigini & Staffolani, 2016).

Tuition fees are one of the most important factors affecting students' decisions regarding higher education. Tuition's impact can be observed on high school graduates and enrolled higher education student for enrollment and degree completion (Bietenbeck et al., 2023). Tuitions are increasing in the USA and UK and many other countries. The reasons include rapid expansion in higher education, increase in costs of institutions and decline in per-student government resources allowed to higher

education institutions. The great share of the increasing costs was born by students in the USA (Dearden et al., 2008). Increases in tuitions have many adverse effects, because many low SES students finance them by loaning. In the USA, it was observed that rising income inequality has increased tuitions and depressed college attendance (Cai & Heathcote, 2022). At the other side of the coin, loan debt has an income inequality effect for college graduates too (Elliott & Lewis, 2015).

Private opportunity cost involves in forgone earnings by attending higher education instead of working for pay and/or self-employment. However, some students still prefer working during enrolment, leading to lower forgone earnings. Student work might be part-time or full-time. Additional grant aids for low-income students may reduce the likelihood of student work (Broton, Goldrick-Rab, & Benson, 2016). Student employment causes a trade-off problem concerning student time spent on working and studying. Student work may affect educational decisions and performance adversely (Neyt et al., 2019). It was shown that increasing financial grants partially offsets student employment (Broton et al., 2016). On the other hand, income derived from part-time work reduces the opportunity cost for higher education students.

After the pandemic, inflationary periods experienced throughout the world caused increases in prices of education goods and services and deterioration in income distribution. An increase in cost of higher education usually leads to an increase in student loans for low- and middle-income students. In recent years four-year college students have experienced such obstacles (Brint, 2022). If not accompanied by an increase in government subsidies gaps in higher education demand and completion rates among different socioeconomic groups may grow to a large extent. For private universities creating alternative financial resources is an important issue, because, otherwise they may lose some of their customers.

In some countries governments seek to charge high tuitions while providing high support and some others do apply low tuitions and support (Jongbloed & Vossensteyn, 2016). Türkiye take place among the latter group. For regular students no tuition is applied since 2010. Evening shift students, open education students and those who are late to complete degree were charged relatively small amounts in public universities. Therefore, tuition does not constitute a big portion of higher education cost in Turkish public university context. However, international students and private university students may face higher tuition fees (Global Academia, 2024). In recent years, country experienced economic troubles characterized by increasing exchange rates with high inflation caused by country's "domestic fundamentals" described by institutional behaviors (Gürkaynak et al., 2023). Under these bad conditions, accommodation and travel costs have risen while real incomes for fixed income groups have declined. As a result, dropping-out tendencies of university students have been increasing (Dündar & Bülbül, 2022).

This study aims to determine the level and types of private educational expenditures of teacher candidates. It also aims at finding out the variables which have impact on the probability of making higher private higher education expenditures. How economic conjectures affected cost of teacher

training in Türkiye can be analyzed within the framework developed in this study. Results of the study might shed light on how private cost of education for prospective teachers during higher education changes over time during 2013 and 2022. In the following section information on the method of the study is presented. Then results are tabulated and discussed. Lastly, some conclusions and recommendations were derived.

2. METHOD

This study is quantitative, descriptive one. It involves in collecting and analyzing data to reveal types, levels and differentiating factors related to teacher candidates studying at seven programs in Faculty of Education. It uses data collected by a questionnaire developed by the researcher. Sample, data collection, variables and data analysis are presented below.

2.1. Model of the Study

The factors influencing this probability of making higher private higher education expenditures were determined as, educational background, family background, cost related factors, higher education aspirations and labor market expectations. Therefore, a model like the Equation (1) below was developed.

$$(1) PE_{it} = b_0 + b_1ED_{it} + b_2FM_{it} + b_3PC_{it} + b_4AS_{it} + b_5EE_{it} + e_{it}$$
$$i = 1, \dots, n; t = 2013, 2016, 2019, 2022$$

In this model, dependent variable (PE) is probability of making private higher education expenditures over average. ED represents students' educational background variables and FM is for family background variables. Influences of PC (other private cost variables), students' higher education aspirations (AS) and future earnings and employment expectations (EE) were also considered.

2.2. Sample of the Study

Sample and population of study comprises first and fourth grade students studying at Mersin University Faculty of Education in 2013, 2016, 2019 and 2022. First fourth grade students were included in the sample because it might allow to analyze differences between two groups. Administration of data collection tool was started in 2012-13 Spring Semester and repeated three times more within a nearly decade long period. Therefore, some first-grade students were probably included in the sample in the following application as fourth graders. However, they were not specifically recognizable, because data were collected anonymously at a voluntary basis. More than half of the targeted population participated in the sample in each application. Numbers of participants by program type and registered students are presented in Table 1.

Table 1. Sample characteristics: Numbers of participated students.

Program	Numbers of Participants			
	2013	2016	2019	2022
(1) Guidance and Psychological Counseling (GPC)	78	97	74	84
(2) English Language Teaching (ELT)	123	109	73	101
(3) Turkish Language Teaching (TLT)	83	84	88	74
(4) Primary Classroom Teaching (PCT)	111	105	86	61
(5) Pre-Primary Teaching (PPT)	138	138	138	100
(6) Primary Mathematics Teaching (PMT)	73	83	99	84
(7) Primary Science Teaching (PST)	61	74	76	70
TOTAL	657	690	624	574
Registered Students	1114	1098	1179	1113
% ((Participated / Registered) x 100)	59	63	53	52

Note: Number of registered students was obtained from Mersin University Registrar and represent the sum of the numbers of first-year and fourth year students who were enrolled in undergraduate programs of Faculty of Education.

2.3. Data and Variables

Data were collected on April 2013, 2016, 2019 and 2022 directly (face-to-face) from voluntary students registered at Mersin University Faculty of Education through application of a questionnaire developed by researcher depending on the literature. Although the questionnaire comprises more questions used for other manuscripts, the categorical variables defined based on the collected data. Variables used in this study are shown in Tables 2, 3, 4, 5 and 6.

Table 2. Educational background variables

Variable	Categories
Registered program	Major type: GPC, ELT, TLT, PCT, PPT, PMT, PST (Table 1)
Grade	I of IV
Shift of education	Day or evening
Type of secondary education completed	Selective general high school, general high school, teacher training high school, vocational high school, private high school, others
University entrance examination	Rank of the program entered in the choice list, number of years to enter the program, exam scores
Academic achievement	Previous semester and cumulative average

Table 3. Family background variables

Variable	Categories
Gender	Female or male
Family residence	Provincial center, district, village
Family size	Number of individuals
Siblings at school	Number of siblings at school
Maternal education level	Higher education, secondary education, below secondary, no education
Paternal education level	Higher education, secondary education, below secondary, no education
Maternal employment status	Employed at public, private, not employed, other
Paternal employment status	Employed at public, private, not employed, other
Family income	Annual family income TL

Table 4. Personal expenditures and other cost related variables

Variable	Categories
Type of expenditure	Clothing, accommodation, food, textbook, activities, tuition, transportation, other
Level of expenditure	Monthly personal expenditure in TL
Student work	Employed for pay? Yes or no
Student work income	If yes how much do you earn per month
Grant and/or loan	Do you receive: Yes or no
Source	Government, university, private, other
Amount of grant and loan	Total monthly amount in TL
Loan for tuition	Do you receive: Yes or no
Application for tuition loan	If no, have you ever applied for?
Source of expenditure	How do you finance your expenditures? Family, work, grant/loan
Willingness to pay tuition for current program	If it was required, how much have you been willing to pay for the program you are currently studying at? Or leave?
Willingness to pay tuition for most wanted program	How much have you been willing to pay If you had been placed at your first choice

Table 5. Higher education aspirations

Variable	Categories
Further education	Are you planning to apply for graduate education
Desire to study at another university	If you had had sufficient grant, at which university do you want to study? At a public university in İstanbul, Ankara, or İzmir; at a private university in İstanbul, Ankara, or İzmir; at the university where I am, other.
Desire to study at another program	If you had had sufficient grant, at which program do you want to study? Business, economics; arts and science; engineering, fine arts and conservatory; program I am studying at; other (medicine, law, counseling (for those who are not in this program), physical therapy and rehabilitation, etc.)

Table 6. Employment and earning expectations

Variable	Categories
Employment expectation	After graduation; as teacher at public schools, private school, other teaching, other than teaching; within a year, next year, later, never.
Monthly earning expectation	At the start of profession; in TL
Annual earning expectation	within the start year, within 5 years, within 10 years

2.4. Data Analysis

Data related to teacher candidates' education expenditures were analyzed by taking averages and percentages. Average education expenditures were computed by attributing mean values and then taking averages. Data related to expenditure types were analyzed by taking percentages. Analysis for revealing factors determining probability of making higher private expenditures carried out by logistic regression. For this non-parametric analysis, observations related to dependent variable taking value higher than mean were assigned 1, and 0 if the value was equal to or less than mean. By doing this conversion, effect of inflation was eliminated in order to make data comparable for different years.

Data were pooled and year dummies were created to find out structural changes among years of data gathering. Dummies were also generated for other monetary variables, i.e., family income, student work income, willingness to pay tuition, and earning expectations. These dummies enabled data pooling but reduced variation in independent variables. Lower variation in data lead to lower goodness-of-fit statistics. However, in logistic regression models R^2 observations are usually lower, because they represent rather relative goodness-of-fit (Christensen, 1990, p. 259). For absolute goodness-of-fit *Hosmer-Lemeshow test* was used. This test has an asymptotic distribution that takes χ^2 probabilities into consideration, and the model was accepted as significant if this probability is lower than 0,05.

3. RESULTS

Level of teacher candidates' higher education expenditures and related statistics over years are shown in Table 7.

Table 7. Teacher candidates' higher education expenditures and related statistics

	2013	2016	2019	2022
Average monthly private expenditure (USD) ¹	166	125	68	39
Student work (%)	15,4	11,9	10,8	12,9
Average monthly income from student work (USD) ^{1,2}	215	155	88	44
Students receiving scholarship and/or credit (%)	76,7	75,4	74,9	73,5
Students receiving scholarship (%)	41,2	35,7	33,3	37,8
Average monthly scholarship or credit (USD) ¹	161	144	87	110
Financing of personal expenditures (%)				
Family	69,7	63,9	62,2	67,1
Student work	14,0	11,9	10,0	12,5
Scholarship and/or credit	63,8	63,6	65,6	62,4
Willingness-to-pay for the major enrolled (USD) ^{1,3}	1067	631	317	162
Willingness-to-pay for the major of first choice (USD) ^{1,3}	462	317	196	93
GDP per capita by current prices (USD) ⁴	12.582	10.964	9.208	10.659

Notes: 1) Data were collected in TRY and converted to USD by monthly purchasing rates published by TCMB (2024). 2) Calculated only for working students. 3) Students were asked the maximum amount of tuition they would have willing to pay if it had been charged. 4) Obtained from TÜİK (2024).

Reported levels of monetary variables (Average monthly private expenditures, average monthly income from student work, average monthly scholarship and credit, and willingness to pay tuition) have been rising in TRY units. It was observed that levels of monetary variables have been declining when they are converted in USD units (Table 7). When they are compared to per capita GDP their amounts are very low. Percentages of teacher candidates receiving scholarship and/or credit have been rather stable. Scholarship/credit is an important source of financing teacher training together with family resources. Student work and its contribution to private financing of education is above %10.

Percentages of expenditure types incurred by teacher candidates who ranked the importance of each item are shown in Table 8. The first percentages show the probability of an expenditure type to be

in top five, and percentages in the paratheses are the probability of an item to be most important type of expenditure.

Table 8. Weights of teacher candidates' expenditure types (%)

Expenditures on	2013	2016	2019	2022
Clothing	80,2 (18,4)	79,0 (17,0)	75,9 (15,6)	76,5 (12,9)
Accommodation	63,6 (37,1)	63,9 (38,7)	63,7 (39,7)	61,5 (34,2)
Food	90,3 (16,0)	90,4 (18,1)	92,4 (24,6)	92,3 (31,5)
Textbook	59,2 (3,3)	73,8 (7,0)	71,6 (6,3)	61,7 (6,5)
Activities	58,8 (3,7)	63,0 (3,3)	56,3 (3,5)	55,4 (3,0)
Tuition	28,9 (7,9)	26,2 (4,5)	18,1 (1,7)	22,5 (1,6)
Transportation	80,2 (12,3)	80,4 (8,8)	76,5 (7,0)	80,1 (8,9)
Other	9,0 (1,4)	13,0 (2,0)	8,6 (1,1)	9,9 (0,1)

Note: Students were asked to mark first 5 important items by the rank of importance. Above figures show probability scores. First percentages show the probability that the item mentioned in top 5. Percentages in parentheses show the probability that the item mentioned first.

It is observed from Table 8 that relative importance of food has been increasing while that of tuition has been decreasing. Importance of clothing has been decreasing to an extent as well. Relative importance of other expenditures types has not been changed to a large extent over the period comprising 2013 to 2022.

The probability of spending higher than average was determined by taking averages of declared private expenditures and generating a dummy variable by assigning 1 to higher-than-average observations and 0 to others. Logistic regression analysis was carried out regressing variables defined in Section 2.3 on probability of making higher private expenditure (PE). The best estimated model obtained by adding significant independent variables is shown Table 9.

Table 9. Logistic regression results for teacher candidates' private expenditures

Probability of higher private expenditure	B	S.E.	Wald	df	Sig.
Constant	-4,112	,256	257,465	1	<,001
PMT Major	-,415	,140	8,785	1	,003
Grade (I-IV, IV=1)	,487	,090	28,994	1	<,001
Gender (male=1))	,749	,096	60,857	1	<,001
Maternal education (high school and higher=1)	,380	,094	16,469	1	<,001
Maternal employment (yes=1)	,317	,132	5,825	1	,016
Family income (higher=1)	,218	,102	4,589	1	,032
Student work (yes=1)	,288	,057	25,139	1	<,001
Earnings from student work (higher=1)	,235	,027	74,106	1	<,001
Family support (yes=1)	,927	,103	80,337	1	<,001
Willingness to pay tuition (higher=1)	,322	,095	11,474	1	<,001
Aspiration for graduate education (yes=1)	,213	,091	5,507	1	,019
Expected monthly earning (higher=1)	,415	,092	20,195	1	<,001
N			2545 (0=1612; 1=933)		
-2 log likelihood					2964,848
Cox & Snell R square					,139
Nagelkerke R square					,190
Hosmer and Lemeshow test			$\chi^2=19,919$; df=8; Sig.=,011		

In Table 9, it is observed that some variables appointed to all five factors (ED, FM, PC, AS, EE) have some contributions to the probability of PE. The model in Table 9 is jointly significant as Hosmer and Lemeshow test indicates. Within ED variables studying in PMT has a negative effect while grade has a positive effect on PE. This means that being a fourth-year student increases, while being a math teaching student decreases the probability of spending more. Gender is considered as a variable related to family cultural capital and included in FM variables. Together with gender maternal education, maternal employment and family income have positive relationship with PE. Therefore, being male, having a high school or more educated mother, having an employed mother, and having a higher-than-average family income increases the probability of PE.

Among other cost related variables (PC), student work and higher-than average income from student work have positive effects on PE. Because of the very low numbers and amounts of tuition applied in Turkish public universities, an alternative variable was considered: willingness to pay tuition. Higher-than average willingness to pay tuition for enrolled program has a positive effect on probability of PE. Among AS variables, aspiration for graduate education has an increasing effect on probability of spending more. Finally, among EE variables, higher-than-average expected monthly earnings in the future increase the probability of PE.

4. DISCUSSION

Turkish economy has experienced increasing exchange rate and inflation dynamics, which caused a substantial increase in living costs (Gürkaynak et al., 2023). Food, accommodation and transportation prices increased substantially, which may have reflections on student behaviors as well. On the other hand, private expenditures of teacher candidates have been observed declining in USD terms (Table 7), although rising in TRY. Some of the decreases might be attributed to increasing exchange rates, while some remaining decreases should have been related to real expenditures. Decreases in real expenditures might be a result of declining household income, as inflation causes decline in low SES families' income. Teacher candidates are typically from low SES families in Türkiye. So decreases in private education expenditures might be a reflection of their comparative disadvantage.

Other studies observed private expenditures of higher education students in Türkiye focused on families' relative burden as well. Private costs might constitute a share in unit costs higher than the share of public (Ekinçi, 2009). Increasing cost born by households leads to low profile higher education choices for low SES students (Yolcu, 2011). Because of the financial burdens, students from lower SES families could not enroll in a private university and choose vocational higher education schools instead (Kandemir & Kaya, 2010).

Tuition costs are declining in Türkiye in real terms. However, in some countries contrary trends have been observed. Where tuition increases, it leads to loan increases for low SES students, which have some adverse effects. Increase in cost burden might impair cognitive functioning and cause a decline in grades over time (Destin & Svoboda, 2018). Secondary school students may overestimate cost of higher

education, which may lead to debt fear (Nienhuser & Oshio, 2017). Loan debt fear has affected Japanese mothers' attitudes towards their children's school choice decisions too (Furuta, 2021). Even, framing and labeling loans may reduce high school student aspirations toward higher education (Evans et al., 2019). Providing information on cost of and returns to education did not increase students' intention to apply university (McGuigan et al., 2016). In Germany, providing information to parents on returns to and cost of higher education did not experimentally close the aspiration gap for students with and without parental higher education background (Lergetporer et al., 2021).

There are some non-negative findings related to tuition increase. Findings from a meta-analysis show that tuition-enrolment elasticity is close to zero, meaning that students demand for higher education on the average does not respond to tuition changes (Havranek et al, 2018). In the UK where a large increase in tuition fees were experienced, it was found that teenagers' aspirations were not responsive to changes in higher education financing, instead a reduction in parents' SES aspiration gap was observed (Hassani-Nezhad et al., 2021). This is probably a result of a reform introducing more support and loaning opportunities made available for low SES students. Loan debt fear deterred students from applying university in 2002, and this effect on student behaviors have changed on the average towards 2015, but debt-averse attitudes remained stronger for low SES students (Callender & Mason, 2017). In Germany, imposing tuition fees has increased the study effort and degree completion among already enrolled students, but decreased first-time university enrollment (Bietenbeck et al., 2023). In an experimental study, male participants show higher aspirations when they face a cost constraint to continue further (Page et al., 2007).

In this study, willingness to pay tuition was asked for the enrolled program and most aspired program. The latter is found unrelated to PE while the former has a positive effect on probability of spending more than average. This willingness might be related to family resources for low SES students as well as the level of tuition and credit constraints are so. Therefore, this finding might be interpreted as an indicator of how students might have behaved under a higher tuition policy.

In the countries where tuition costs and student loans are higher financial aids gets extremely important especially students from low SES. However, financial aid does not cover all the expenses of students. In the USA, tuition costs have been increasing, state funding for higher education has been declining and mean family income has also declined or stagnated since the turn of the 21st century (Adrews, 2021). Increase in costs has led high levels of student debt and obstacles for low SES students (Brint, 2022). These financial conditions have changed college students' credit card using behavior and lowered likelihood of completing bachelor's degree (Andrews, 2021). In an experimental study, financial education was found ineffective on consumer behaviors of students (Beckker et al., 2021). Constraints on government student loans may increase use of private loans which are sensitive to credit risk. (Ionescu & Simpson, 2016). Higher government borrowing limits increase college investment, and an increase in tuition subsidies reduces private default rates as well (Ionescu & Simpson, 2016).

In many countries, student grants, tuition fees, and subsidized loans depend on parental income and mainly benefit high-ability students (Dur et al., 2004). Students from low SES background typically dependent on these kinds of supports. Income-Contingent Loans (ICL) was introduced in USA as a means to finance higher education by the income earned by graduates afterwards (Shireman, 2017). Later, it was used in European countries to increase the student contribution to financing of higher education (Vandenberghe & Debande, 2008). Giving loans to South African female students have increased their enrollment in higher education (Gurgand et al., 2023). Findings of a natural experiment showed that need-based aids have increased the college persistence including, lower drop-out rates, increased attendance, and higher grades (Bettinger, 2015). Need-based aids might be more preferable by students (Heo, 2023). In Jamaica need-based aids improved educational performance of students, while early labor market outcomes were negative (Wright, 2021). However, selecting among low SES secondary school students for eligibility to gain government support might be inefficient as their likelihood of enrollment in college is low (Lee et al., 2021). In addition, low-cost intervention may be insufficient to provide completion for near graduating students (Bettinger et al., 2022). Merit-based aids might not have a positive effect on attendance and attainment, either (Gurantz & Odle, 2022). However, in the long run merit-based aids have positive effects on degree completion, house ownership and annual earnings (Scott-Clayton & Zafar, 2019). Student support eligibility has substantial long run effects on adults' annual earnings and employment (Lavecchia et al., 2020).

In this study, it was reported by teacher candidates that about $\frac{3}{4}$ of them have received scholarship and or credit. Those who received scholarship is between 30 and 40%. They also reported that their expenditures have been declining in USD terms, as financial resources to meet them, namely family income, amount of scholarship/credit and income from student work have declining during the period while this research has been conducted. Teacher candidates receive similar amounts of scholarship and/or credits. Probability of student work has not been increasing, probably as a result of high rates of youth unemployment in Türkiye. These results imply that higher dependency on student loans, family income and student work will be necessary for teacher candidates to secure them from student poverty.

5. CONCLUSION AND RECOMMENDATIONS

In this study, variables included in educational background, family background, other cost related factors, higher education aspirations and future labor market expectations were all found related to higher probability of teacher candidates' private expenditures. Sources of funding for expenditures, family income, scholarship/credit, and student work were all related to spending higher-than average. Results also show that teacher candidates private expenditures have been declining over time. Moreover, composition of expenditures has also been changing, expenditure on food gets relatively more important and clothing and tuition get relatively less important. Higher family income was related to higher-than-average private spending, while higher student work income and higher student loan/scholarship were

not related. The reason for that might be relatively similar levels of scholarship/credits and low probability of student work. These findings imply that wealth of families of teacher candidates have been declining and lowering private higher education expenditures. As most of the teacher training students in the sample are considered coming from low SES families, it can be concluded that lower financial resources might have narrowed the private expenditures. Willingness to pay tuition seems to be related to family SES too.

A policy recommendation depending on the results of the research could be increasing the levels and availability of family resources for teacher candidates. Otherwise, student poverty can be expected to be more prevalent among teachers of future. Another policy recommendation could be introduction of merit-based supports. A recommendation for future research is that as level and types of expenditures change more attention must be given to transportation cost. In this study family settlement was asked. The proximity or distance of the family settlement might also be asked in detail.

REFERENCES

- Andrews, B.D. (2021). College costs and credit cards: How student credit card use influences college degree attainment. *Research in Higher Education*, 62(6), 885-913. <https://doi.org/10.1007/s11162-020-09622-8>
- Beckker, K. De, Witte, K. De, & Campenhout G. Van. (2021). The effect of financial education on students' consumer choices: Evidence from a randomized experiment. *Journal of Economic Behavior and Organization*, 188, 962-976.
- Bettinger, E. (2015). Need-based aid and college persistence: The effects of the Ohio college opportunity grant. *Educational Evaluation and Policy Analysis*, 37(1S), 102S-119S <https://doi.org/10.3102/0162373715576072>
- Bettinger, E.P., & Castleman, B.L., Choe, A., Mabel, Z. (2022). Finishing the last lap: Experimental evidence on strategies to increase attainment for students near college completion. *Journal of Policy Analysis and Management*, 41(4), 1040-1059. <https://doi.org/10.1002/pam.22416>
- Bietenbeck, J., Leibing, A., Marcus, J., & Weinhardt, F. (2023). Tuition fees and educational attainment. *European Economic Review*, 154, 104431. <https://doi.org/10.1016/j.euroecorev.2023.104431>
- Brint, S. (2022). Challenges for higher education in the United States: The cost problem and a comparison of remedies. *European Journal of Education*, 57(2), 181-198. <https://doi.org/10.1111/ejed.12496>
- Broton, K.M., Goldrick-Rab, S., Benson, J. (2016). Working for college: The causal impacts of financial grants on undergraduate employment. *Educational Evaluation and Policy Analysis*, 38(3), 477-494. <https://doi.org/10.1007/10.3102/0162373716638440>
- Cai, Z., & Heathcote, J. (2022). College tuition and income inequality. *American Economic Review*, 112(1), 81-121. <https://doi.org/10.1257/aer.20181027>
- Callender, C., & Mason, G. (2017). Does student loan debt deter higher education participation? New evidence from England. *Annals of the AAPSS*, 671, 20-48. <https://doi.org/10.1177/0002716217696041>
- Christensen, R. (1990). *Log-linear models*. New York: Springer-Verlag. ISBN: 978-0-3897398-2.
- Dearden, L., Fitzsimons, E., Goodman, A., & Kaplan, G. (2008). Higher education funding reforms in England: The distributional effects and the shifting balance of costs. *The Economic Journal*, 118(526), F100–F125. <https://doi.org/10.1111/j.1468-0297.2007.02118.x>
- Destin, M., & Svoboda, R.C. (2018). Costs on the Mind: The influence of the financial burden of college on academic performance and cognitive functioning. *Research in Higher Education*, 59(3), 302-324. <https://doi.org/10.1007/s11162-017-9469-8>
- Donovan, K., & Herrington, C. (2019). Factors affecting college attainment and student ability in the U.S. since 1900. *Review of Economic Dynamics*, 31, 224-244. <https://doi.org/10.1016/j.red.2018.07.003>

- Dur, R., Teulings, C., & Rens, T. Van. (2004). Should higher education subsidies depend on parental income? *Oxford Review of Economic Policy*, 20(2), 284-297. <https://doi.org/10.1093/oxrep/grh016>
- Dündar, Ö., & Bülbül, T. (2022). Relations between university students' perceptions of organizational image, levels of alienation and tendency to drop-out. *MANAS Journal of Social Studies*, 11(2), 522-541. <https://dergipark.org.tr/en/download/article-file/2054878>
- Elliott, W., & Lewis, M. (2015). Student debt effects on financial well-being: Research and policy implications. *Journal of Economic Surveys*, 29(4), 614-636. <https://doi.org/10.1111/joes.12124>
- Evans, B.J., Boatman, A., & Soliz, A. (2019). Framing and labeling effects in preferences for borrowing for college: An experimental analysis. *Research in Higher Education*, 60(5), 438-457. <https://doi.org/10.1007/s11162-018-9518-y>
- Flaster, A. (2018). Kids, college, and capital: Parental financial support and college choice. *Research in Higher Education*, 59(8), 979-1020. <https://doi.org/10.1007/s11162-018-9496-0>
- Furuta, K. (2021). Parental perceptions of university cost, fear of debt, and choice of high school in Japan. *British Journal of Sociology of Education*, 42(5-6), 667-685. <https://doi.org/10.1080/01425692.2021.1896356>
- Gurantz, O., & Odle, T.K. (2022). The impact of merit aid on college choice and degree attainment: Reexamining Florida's Bright Futures program. *Educational Evaluation and Policy Analysis*, 44(1), 79-104. <https://doi.org/10.3102/01623737211030489>
- Gurgand, M., Lorenceau, A., & Mélonio, T. (2023). Student loans: Credit constraints and higher education in South Africa. *Journal of Development Economics*, 161, 103031. <https://doi.org/10.1016/j.jdeveco.2022.103031>
- Gürkaynak, R.S., Kısacıköçlü, B., & Lee, S.S. (2023). Exchange rate and inflation under weak monetary policy: Turkey verifies theory. *Economic Policy*, 38(115), 519-560. <https://doi.org/10.1093/epolic/eiad020>
- Hassani-Nezhad, L., Anderberg, D., Chevalier, A., Lührmann, M., & Pavan, R. (2021). Higher education financing and the educational aspirations of teenagers and their parents. *Economics of Education Review*, 85, 102175. <https://doi.org/10.1016/j.econedurev.2021.102175>
- Havranek, T., Irsova, Z., Zeynelova, O. (2018). Tuition fees and university enrolment: A meta-regression analysis. *Oxford Bulletin of Economics and Statistics*, 80(6), 1145-1184. <https://doi.org/10.1111/obes.12240>
- Heo, E.J. (2023). Financial aid in college admissions: need-based versus merit-based. *Social Choice and Welfare*, 60(1-2), 265-297. <https://doi.org/10.1007/s00355-022-01405-7>
- Ionescu, F., & Simpson, N. (2016). Default risk and private student loans: Implications for higher education policies. *Journal of Economic Dynamics & Control*, 64, 119-147. <http://dx.doi.org/10.1016/j.jedc.2015.12.003>

- Jacob, B., McCall, B., & Strange, K. (2018). College as country club: Do colleges cater to students' preferences for consumption? *Journal of Labor Economics*, 36(2), 309-348. <https://doi.org/10.1086/694654>
- Jenkins, G.P., Anyabolu, H.A., & Bahramian, P. (2019). Family decision-making for educational expenditure: new evidence from survey data for Nigeria. *Applied Economics*, 51(52), 5663-5673. <https://doi.org/10.1080/00036846.2019.1616075>
- Jongbloed, B., & Vossensteyn, H. (2016). University funding and student funding: international comparisons. *Oxford Review of Economic Policy*, 32(4), 576-595. <https://doi.org/10.1093/oxrep/grw029>
- Jones, J.B., & Yang, F. (2016). Skill-biased technical change and the cost of higher education. *Journal of Labor Economics*, 34(3), 621-662. <https://doi.org/10.1086/684856>
- Lavecchia, A.M., Oreopoulos, P., & Brown, R.S. (2020). Long-Run effects from comprehensive student support: Evidence from pathways to education. *American Economic Review: Insights*, 2(2), 209-224. <https://doi.org/10.1257/aeri.20190114>
- Lee, J.C., Dell, M., González Canché, M.S., Monday, A., & Klafehn, A. (2021). The hidden costs of corroboration: Estimating the effects of financial aid verification on college enrollment. *Educational Evaluation and Policy Analysis*, 43(2), 233-252. <https://doi.org/10.3102/0162373721989304>
- Lergetporer, P., Werner, K., & Woessmann, L. (2021). Does ignorance of economic returns and costs explain the educational aspiration gap? Representative evidence from adults and adolescents. *Economica*, 88(351), 624-670. <https://doi.org/10.1111/ecca.12371>
- McGuigan, M., McNally, S., & Wyness, G. (2016). Student awareness of costs and benefits of educational decisions: Effects of an information campaign. *Journal of Human Capital*, 10(4), 482-519. <https://doi.org/10.1086/689551>
- Neyt, B., Omev, E., Verhaest, D., & Baert, S. (2019). Does student work really affect educational outcomes? A review of the literature. *Journal of Economic Surveys*, 33(3), 896-921. <https://doi.org/10.1111/joes.12301>
- Nienhusser, H.K., & Oshio, T. (2017). High school students' accuracy in estimating the cost of college: A proposed methodological approach and differences among racial/ethnic groups and college financial-related factors. *Research in Higher Education*, 58(7), 723-745. <https://doi.org/10.1007/s11162-017-9447-1>
- Page, L., Garboua, L.L., & Montmarquette, C. (2007). Aspiration levels and educational choices: An experimental study. *Economics of Education Review*, 26(6), 748-758. <https://doi.org/10.1016/j.econedurev.2007.06.001>
- Pigini, C., & Staffolani, S. (2016). Beyond participation: do the cost and quality of higher education shape the enrollment composition? The case of Italy. *Higher Education*, 71(1), 119-142. <https://doi.org/10.1007/s10734-015-9892-8>

- Shireman, R. (2017). Learn now, pay later: A history of income-contingent student loans in the United States. *Annals of the AAPSS*, 671, 184-201. <https://doi.org/10.1177/0002716217701673>
- TCMB (2024). *Annual Average USD/TRY Exchange Rates (Buying)*. Retrieved from https://evds2.tcmb.gov.tr/index.php?/evds/serieMarket/#collapse_2 on 29 January 2024.
- TÜİK (2024). Annual national account statistics. Retrieved from <https://biruni.tuik.gov.tr/medas/?kn=136&locale=en> on 18 March 2024.
- Vandenbergh, V., & Debande, O. (2008). Refinancing Europe's higher education through deferred and income-contingent fees: An empirical assessment using Belgian, German & UK data. *European Journal of Political Economy*, 24(2) 364-386. <https://doi.org/10.1016/j.ejpoleco.2007.09.005>
- Wright, N.A. (2021). Need-based financing policies, college decision-making, and labor market behavior: Evidence from Jamaica. *Journal of Development Economics*, 150, 102617. <https://doi.org/10.1016/j.jdeveco.2020.102617>

GENİŞLETİLMİŞ TÜRKÇE ÖZET

ÖĞRETMEN ADAYLARININ KİŞİSEL HARCAMALARI: MERSİN ÜNİVERSİTESİ ÖRNEĞİ

Giriş

Eğitimin kişisel maliyeti öğrencilerin yükseköğretim talebi ve program tercihleri üzerinde etkisi olan faktörlerden biridir. Kişisel maliyetler doğrudan ve dolaylı maliyetleri içerir. Doğrudan maliyetler içinde kişisel harcamalar yer alır. Bunlar barınma, ulaşım, öğrenim ücreti vb. şekillerde ortaya çıkar. Düşük gelirli öğrenciler bu harcamalarını karşılamak için burs ve kredi şeklinde desteğe ihtiyaç duyar. Batılı ülkelerde yükseköğretimin harcamaları artış eğilimindedir. Bunun en önemli nedenlerinden biri öğrenim ücretlerindeki artıştır. Yükselen öğrenim ücretleri özellikle düşük SES ailelerden gelen öğrenciler için daha fazla burs ve kredi ihtiyacı anlamına gelmektedir. Vazgeçilen kazançlar ise dolaylı maliyetleri oluşturur. Öğrenci işgücü sonucu elde edilen kazançlar vazgeçilen kazançları düşürür. Enflasyonist süreçler eğitimin maliyetini artırıcı etkiye sahiptir. Türkiye’de de enflasyonist bir süreç yaşanmaktadır. Öte yandan, devlet üniversitelerinde okuyan öğrenciler için öğrenim ücretleri çok düşüktür. Düzenli öğrenciler öğrenim ücreti ödememektedir. Diğer kişisel harcamalar ise ekonomik koşullardan etkilenmektedir.

Bu çalışmada, öğretmen adaylarının kişisel harcama düzeyleri ve harcama türleri ile, ortalamadan yüksek kişisel harcama yapma olasılığını etkileyen değişkenlerin belirlenmesi amaçlanmaktadır. Çalışmanın sonuçları geleceğin öğretmenlerinin kişisel harcamalarının ekonomik gelişmeler karşısında nasıl bir gelişim gösterdiğinin anlaşılması açısından önemlidir.

Yöntem

Bu çalışmada nicel veri analizine dayalı betimsel bir araştırma yöntemi benimsenmiştir. Araştırma kapsamında Mersin Üniversitesi Eğitim Fakültesinde 2013, 2016, 2019 ve 2022 yıllarında öğrenim gören öğretmen adaylarından çalışma kapsamında geliştirilen bir anket aracılığıyla veri toplanmıştır. Çalışmaya 2013’te 657, 2016’da 690, 2019’da 624, 2022’de 574 olmak üzere toplam 2545 öğretmen adayı katılmıştır. Katılım oranı yıllara göre %52 ile %63 arasındadır. Araştırmada öğretmen adaylarının harcama düzey ve türlerini belirlemek için ortalama ve yüzdeler alınmıştır. Öğretmen adaylarının ortalamadan yüksek kişisel harcama yapma olasılığını etkileyen faktörleri tespit etmek için bir model geliştirilmiştir. Bu modelde yüksek kişisel harcamalar bağımlı değişken olarak; eğitim geçmişi, aile geçmişi, diğer maliyet değişkenleri, yükseköğrenim arzuları ve gelecekteki işgücü piyasası beklentileri belirleyici faktörler olarak ele alınmıştır. Bu faktörleri açıklamak için bir dizi değişken kullanılmıştır. Bu değişkenlerin anlamlı katkıda bulunduğu en iyi model lojistik regresyon analizi ile belenmiştir.

Bulgular

Araştırmadan elde edilen bulgulara göre kişisel eğitim harcamaları ve diğer parasal değişkenlerin ortalama değerleri Türk Lirası (TRY) cinsinden artış göstermiş olsa da Amerikan Doları (USD) cinsinde düşüş göstermektedir. Aile geliri, burs/kredi geliri ve öğrenci işgücünden elde edilen gelirlerin ortalamaları kişisel harcamaların finansman kaynağı olarak görülmektedir ve üçünün de eğitim harcamaları ile birlikte USD cinsinden düşüş gösterdiği gözlenmiştir. Burs veya kredi alan öğretmen adayları oranı %75 civarındadır. Karşılıksız burs alanları oranı ise yıllara göre %33 ile %41 arasında değişmektedir. Türkiye’de uygulanan devlet üniversitelerinde sıfır öğrenim ücreti politikası nedeniyle anlamlı bir öğrenim ücreti verisinden söz etmek mümkün değildir. Bu çalışmada, bunun yerine alternatif bir değişken olarak öğrenim ücreti ödeme rızası geliştirilmiştir. Hem devam edilen programda hem de en çok arzulanan programda öğrenim ücreti ödeme rızası yıllar içinde düşüş göstermiştir. Öğretmen adaylarının harcama türleri incelendiğinde, harcamalar içinde yiyeceğin görece öneminin arttığı, giyecek ve öğrenim ücretinin görece öneminin azaldığı gözlenmiştir.

Enflasyonun veri üzerindeki etkisinden kaçınmak için veri toplanan her bir yıl için ayrı ayrı olmak üzere ortalamadan yüksek harcama beyan edenler için 1 diğerleri için 0 değerini alan bir kukla değişken elde edilmiştir. Bu değişkene ortalamadan yüksek kişisel harcama yapma olasılığı adı verilmiştir. Bu değişkenin bağımlı olarak ele alındığı lojistik regresyon sonuçlarına göre araştırma modelinde yer alan her bir faktör kapsamına giren bazı değişkenlerin yüksek harcama yapma (PE) olasılığını etkilediği gözlenmiştir. İlköğretim Matematik Öğretmenliği programına kayıtlı olmanın PE olasılığını olumsuz etkilediği ortaya çıkmıştır. Dördüncü sınıf olmak birinci sınıfa göre PE olasılığını artırmaktadır. Erkek olmak da PE olasılığını olumlu etkilemektedir. Anne eğitim düzeyi, anne istihdam durumu ve aile geliri PE olasılığını artıran diğer aile geçmişi değişkenlerindedir. Öğrenci işgücü ve bundan elde edilen gelirlerin ortalamasının üstünde olması PE üzerinde olumlu etkiye sahiptir. Finansman kaynaklarından aile desteği pozitif etkiye sahipken, öğrenci çalışması gelirleri ve burs ve kredi gelirlerinin PE olasılığı üzerinde anlamlı etkisi yoktur. Kayıt olunan bölümde öğrenim ücreti ödeme rızası, lisansüstü eğitim görme arzusu ve gelecekte beklenen ortalama aylık ücretin ortalamasının üstünde olması PE olasılığını artırmaktadır.

Tartışma

Kişisel yükseköğretim harcamaları başka ülkelerde artarken bu çalışmada elde edilen bulgulara göre öğretmen adayları için düşüş eğilimindedir. Öğretmen adaylarının kişisel harcamaları ağırlıklı olarak aile gelirlerinden karşılanmaktadır. Dolayısıyla aile gelirindeki değişikliklere duyarlıdır. Türkiye’de yaşanan enflasyonist süreç aile gelirlerindeki daralma nedeniyle öğrenci harcamalarını USD bazında düşürmüştür. Başka ülkelerde ise enflasyonist süreç eğitim maliyetlerindeki artış nedeniyle gerçekleşen yüksek öğrenim ücretleri kişisel harcamaları artıran en önemli neden olmaktadır. Türkiye için yapılan başka araştırmalar da aile kaynaklarının yükseköğretim harcamalarının finansmanındaki önemini vurgulamaktadır.

Öğrenim ücretlerindeki artış başka ülkelerde özellikle düşük SES ailelerden gelen öğrencilerin borç yükünün artmasına neden olmuştur. Borç yükünün artması öğrenciler üzerinde bazı psikolojik etkilere sahiptir. Başarı üzerindeki etkisinin yanında öğrencilerin arzuları ve beklentileri de borç yükünden olumsuz etkilenmektedir. Türkiye’de ise aile gelirinin daralmasının yanı sıra borçlanma ve burs elde etme olanaklarının kısıtlı olması bir takım olumsuz etkilere sahip olmuş olabilir. Öğrencilerin kredi kartı kullanımındaki artış, harcama kompozisyonunun değişmesi gibi etkiler de söz konusudur.

Aile gelirindeki daralmanın yanı sıra burs ve kredi olanaklarının genişlememesi, öğrenci çalışmasının da yüksek genç işsizlik oranları nedeniyle artmaması öğretmen adayları açısından artan bir öğrenci yoksulluğu tehdidinden bahsedilebileceğini anlamına gelmektedir.

Sonuç ve Öneriler

Bu araştırmadan elde edilen sonuçlar, kişisel harcamaların, özellikle de öğrenim ücretlerinin diğer bazı Batılı ülkelerde artış eğilimindeyken öğretmen adaylarının için düşüş eğiliminde olduğu yönündedir. Bunun temel nedeninin aile gelirlerindeki düşüş olduğu sonucuna varılmıştır. Öğretmen adaylarının büyük ölçüde düşük SES ailelerden gelmiş olması ailelerin SES’lerinin düşüş eğiliminde olduğu anlamına gelmektedir. Öğretmen adaylarının yoksulluğunun önüne geçilmesi için öncelikle aile gelirini artırıcı politikalara ihtiyaç olduğu bir öneri olarak öne çıkmaktadır. Bursların ve kredi desteğinin benzer düzeyde olması, bunların kişisel harcamalar üzerinde ayırt edici olmamasına yol açmıştır. Bu nedenle başarı temelli öğrenci desteklerinin başlatılması bir başka politika önerisidir. Gelecekte yapılacak araştırmalar için ise, ailenin yerleşim yerinin okula olan uzaklığının bir maliyet unsuru olarak göz önünde bulundurulması bir öneri olarak düşünülmektedir.